St. Thomas More College
Phil 140 MO1
Test #2

50/60

Student Name: _____

Student Number:_____

General Instructions: This test has three parts. Do each question in each part, as instructed below.

Part I

For each proposition below, indicate whether it is true or false. (2 marks each)

✓ 1. T All valid arguments are entailments.

2. F A logically necessary truth is entailed by any set of propositions.

3. T An argument for the denial of a respondent's thesis is a strong refutation of the thesis, if the argument is obviously sound.

4. F It is impossible for a valid argument to have a true conclusion and a false premiss.

✗ 5. T If a questioner in a dialectic proves that one of the respondent's given deductive arguments for his or her thesis is unsound, then necessarily the questioner has at least weakly refuted that thesis.

6. F Every argument that is not truth-functionally valid is simply invalid.

7. F Every direct answer to a complex question is either more or less informative than any other one.

8. F If a questioner asks a question without first asking and receiving answers to prior questions, then necessarily he has committed the fallacy of asking a complex question.

✓ 9. T A truth-functional negation is a complex proposition that satisfies the following:

i) It has exactly one immediate component
ii) In the case that its immediate component is simply true, the complex is false

14/20

iii) In the case that its immediate component is simplyfalse, the complex is true.
& iv) In the case that its immediate component is neither simply true nor simply false, it is false.

10. T Direct answers to a question are consistent with the presuppositions of the question.

Part II

For each of the arguments below indicate which, if any, of the two types of fallacy below it contains. If it does not contain a fallacy of either type, then write "None"; otherwise write the name of the fallacy. (2 marks for each question)

Ad Ignorantium Fallacy Fallacious Complex Question

a) We can't prove or refute the thesis that God exists. So we will probably never know whether God exists.

2 None.

b) **Solipsist**: I don't think that anyone can prove with mathematically certainty that the external world exists. So the only thing that exists, I think, is myself.
Common Sense Philospher: How can you believe that, given that you are addressing me as if I exist? In any case, no one needs proof that the external world exists, since the existence of the external world is presumptively evident in almost any thing one consciously does.

2 → ad ignorantium fallacy; ("can't prove outside existance, therefore no outside existance.")

c) Probably, no one can prove or disprove that there are infinitely many twin primes (i.e. pairs of primes differing by 2 - e.g. 5 and 7). The best explanation for this is that the statement lacks the content of a meaningful proposition. So the statement is probably neither true nor false.

0 Guess, if you don't know.

d) **Fatalist**: The future is already determined
Libertarian: Why do you think that the future is already determined?
Fatalist: Since God foreknows everything.
Libertarian: And why, on earth, do you believe such an absurd doctrine as that?

2 fallacious complex question

e) Some truths are self-evident in themselves. For if every truth needed to be demonstrated to be evident, demonstration itself would be impossible, which is absurd..

None.

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8/10

Part II

Using the given propositional letters, 'A', 'B', and 'C', to symbolize only propositions that are truth-functionally simple and using only the symbols for truth-functional negation, '~', conjunction, '∧', inclusive disjunction ,'∨', implication, '⊃', and equivalence '≡' symbolize each of the arguments below and then construct a truth-table to determine whether it is truth-functionally valid. (10 marks for each question)

a) P1: It is not true that (although Bruce Springsteen is singing in support for Kerry, Bush will win.)
P2: But Bruce Springsteen is singing in support of Kerry. C: So Bush won't win.

Symbolization Scheme (*No more than three* labels are needed.)

A: Bruce Springsteen is singing ... Kerry ✓

B: Bush will win. ✓

C:

Symbolization of the Argument

(P1) $\sim(A \wedge B)$ ✓
(P2) A ✓

(C) $\sim B$ ✓

Truth-Table Analysis of the Symbolic Argument

	A	B	C	(P1) ~	(A ∧ B)	(C) ~ B
1.	T	T	T	F	T	F ✓
2.	T	T	F			
3.	T	F	T	T	F	T
4.	T	F	F			
5.	F	T	T	T	F	F
6.	F	T	F			
7.	F	F	T	T	F	T
8.	F	F	F			

10/10

Evaluation

Line 3 is only line where (P1) & (P2) are true. ✓
Here the conclusion is true, so argument is valid.

P1: P2: P3:

b) My coat is blue or green. If it is not blue, then my colour judgement is bad. But my colour judgement is not bad. So my coat is not green.

Symbolization Scheme (*No more than three* labels are needed)

A: Coat is blue ✓

B: Coat is green ✓

C: Color judgement is bad. ✓

Symbolization of the Argument

(P1) $A \vee B$
(P2) $(\sim A) \supset C$
(P3) $\sim C$

(C) $\sim B$

Non-compound components do not have brackets.

Truth-Table Analysis of the Symbolic Argument

	A	B	C	(P1) $A \vee B$	$(\sim A)$	(P2) $\supset C$	(P3) $\sim C$	(C) $\sim B$
1.	T	T	T	T	F	T	F	F
2.	T	T	F	T	F	T	T	F
3.	T	F	T	T	F	T	F	T
4.	T	F	F	T	F	T	T	T
5.	F	T	T	T	T	T	F	F
6.	F	T	F	T	T	F	T	F
7.	F	F	T	F	T	T	F	T
8.	F	F	F	F	T	F	T	T

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Evaluation

In line 2, all premisses are true and the conclusion is false. Strictly speaking, the argument is NOT valid. This is due to the hook operator being true when its first ~~argument~~ is false.

c) *At least two* of the following stories were written by Pushkin:

P1:

Anna Karenina

The Captain's Daughter

The Queen of Spades

P2:

C:

But The Captain's Daughter was written by Pushkin only if Anna Karenina was not. So provided that Pushkin wrote The Captain's Daughter, he wrote The Queen of Spades too.

Symbolization Scheme (*No more than three* labels are needed)

A: Pushkin wrote Anna Karenina

B: Pushkin wrote The Capt. Daughter

C: Pushkin wrote The Queen of Spades

Symbolization of the Argument

P1: $((A \wedge B) \vee (A \wedge C)) \vee (B \wedge C)$

P2: $\sim(\sim A) \equiv B$

C: $B \supset C$

Brackets are not needed, allowed, for. Enclose only compound, not simply complex, components w brackets.

Truth-Table Analysis of the Symbolic Argument

	A	B	C	$((A \wedge B) \vee (A \wedge C))$			(P1) $\vee$	$(B \wedge C)$		$\sim A \equiv B$ (P2)		$B \supset C$ (C)
1.	T	T	T	T	T	T	T	T		F	F	T
2.	T	T	F	T	T	F	T	F		F	F	F
3.	T	F	T	F	T	T	T	F		F	F	T
4.	T	F	F	F	F	F	F	F		F	F	T
5.	F	T	T	F	F	F	T	T		T	T	T
6.	F	T	F	F	F	F	F	F		T	T	F
7.	F	F	T	F	F	F	F	F		T	F	T
8.	F	F	F	F	F	F	F	F		T	F	T

└ Circle main column

Evaluation

In all lines where the premisses are true, the conclusion is true. ∴ it is a valid argument.

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10